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(54) **COMMUNICATION APPARATUS, MEMORY MEDIUM AND METHOD**

(75) Inventors: **Junji Hatamura, Nagoya (JP); Kenichi Dan, Nagoya (JP)**

(73) Assignee: **Brother Kogyo Kabushiki Kaisha, Nagoya (JP)**

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(58) Field of Search **455/569, 566, 455/415, 567; 379/215, 127, 142**

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,265,264 A * 11/1993 Dzung et al. 455/90
 5,526,406 A * 6/1996 Luneau 379/61
 5,749,056 A * 5/1998 Patterson et al. 455/569

5,836,009 A * 11/1998 Diamond et al. 379/93.23
 5,841,853 A * 11/1998 Yamanishi et al. 379/215
 5,901,212 A * 5/1999 True et al. 379/215
 6,038,443 A * 3/2000 Luneau 455/415
 6,075,850 A * 6/2000 Ali et al. 379/142
 6,278,887 B1 * 8/2001 Son et al. 455/566

* cited by examiner

Primary Examiner—Lester G. Kincaid

Assistant Examiner—Naghmeh Mehrpour

(74) *Attorney, Agent, or Firm*—Oliff & Berridge, PLC

(57) **ABSTRACT**

A communication apparatus that is capable of switching to an external caller apparatus if a ringing signal from the external caller apparatus is received during a telephone communication with another external apparatus. The communication apparatus has a handset and a display panel provided in the handset. A caller information display control device causes caller information regarding the external caller apparatus to be displayed on the display panel if a ringing signal is received from the external caller apparatus during a telephone conversation with the other external apparatus. The communication apparatus further includes an input/output level control device that changes the input and output levels of the handset if the caller information is displayed on the display panel during the telephone conversation.

43 Claims, 6 Drawing Sheets

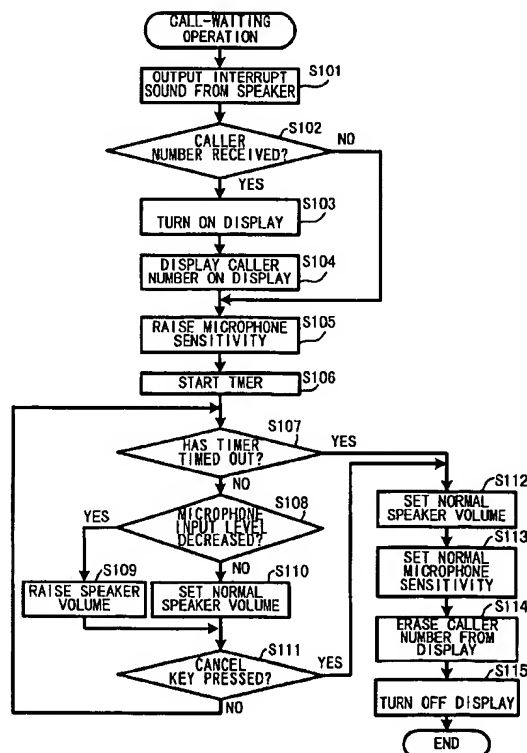


Fig.6

